



ELECTRICAL CURRENTS

Newsletter from the Office of the Chief Electrical Inspector

Ron Fuller, Chief Electrical Inspector

Vol. 5 No. 2

February 2002

● Stakeholder Meetings for 2002

The department is again offering 4 Continuing Education Units (CEU's) for those who attend the meetings and score at least 70% on a take-home examination.

April 16 7-9 PM	Colville – Community Colleges of Spokane, Institute for Extended Learning, 985 S. Elm St.	April 18 7-9 PM	Spokane – Community College, Lair Bldg., 1810 N. Greene St., Spokane, WA.
April 17 7-9 PM	Pullman – City Hall-Community Center 325 S. E. Paradise		

● Electrical Board Recruitment

Four Electrical Board appointments are scheduled to expire on July 7, 2002. There is one position each representing: licensed electrical contractors, certified electricians, telecommunications utilities, and citizens. Incumbent members and new interested qualified persons may apply for these positions.

The Electrical Advisory Board consists of fourteen (14) members appointed by the Governor for a regular term of four years per member. Representation on the Board includes three electrical contractors, one electrical utility representative, one manufacturer, three certified electricians, one combination electrical/RCDD certified engineer, one general public member, one telecommunications worker, one telecommunications contractor, one telecommunications service provider and one building official (non-voting).

An *Application for Gubernatorial Appointment to a Board or Commission* form is necessary. Requests for copies of the application and any questions may be directed to Angie Wharton at (360) 902-5259 or Rhonnda Jenkins at (360) 902-5572. Applicants should submit a letter of interest, completed application form, and current resume to the office of the Chief Electrical Inspector, PO Box 44460, Olympia, WA 98504-4460, by **no later than April 1, 2002**.

● Continuing Education Audits

WAC 296-401B-130(2)(b) requires that individuals seeking renewal of their electrician's certificate of competency provide accurate evidence of at least 8 hours of approved continuing education units (CEU's) for each year of the previous work period. WAC 296-401B-800 and 850 allow the department to issue civil penalties and suspend or revoke an electrician's certificate when false CEU's are claimed on a renewal form.

The Department is commencing random audits of electrician renewals to verify compliance with the CEU requirements. Any electrician providing false CEU statements on electrician renewal forms will be sent a notice of intent to: suspend the certificate for 3 months and issue a civil penalty for submitting false information. Anyone suspended through this process will be required to obtain a trainee certificate to retain the ability to work in the electrical construction industry during the period of suspension. All persons working as a trainee must work under supervision. In order to clear up any discrepancies, anyone who has concerns with the information submitted on their renewal should contact Gerry Jessen at (360) 902-5247.

● Move-on Buildings and Structures

RCW 19.28.010(2) states that residential move-on buildings/structures are not subject to "all" the requirements of the RCW so long as the occupancy is not changed and there has not been substantial remodeling as a result of the move. Commercial buildings/structures are not covered in this exemption and are subject to all current wiring requirements.

The exemption in RCW 19.28.010(2) does not preclude an electrical safety inspection of any building/structure. Moved-on residential buildings/structures must meet all National Electrical Code

(NEC) and RCW requirements in place at the time the installed wiring was completed. This means that if a house was wired in 1978, the wiring must meet the requirements of the 1978 RCW and the 1978 NEC; this may include listing and labeling of equipment and wiring.

All move-on buildings/structures, residential or commercial, must be inspected prior to connection to electrical power. If the residential building/structure is not in compliance, the person performing the wiring may request relief through the variance process on a case-by-case basis. Variance requests are evaluated to ensure that the minimum levels of safety have been met or mitigated.

● Prefabricated Buildings

Classification, listing, and labeling of a factory structure by a product testing laboratory is not a substitute for field or factory inspection performed by the appropriate Authority Having Jurisdiction (AHJ). The department retains the right to do inspections of prefabricated buildings/structures that will be sited in Washington. Electrical testing laboratories are not approved in Washington to perform inspections or make approvals based on the National Electrical Code (NEC), RCW 19.28 or other building codes.

If open construction methods are used, an electrical work permit must be purchased and inspection, by the electrical inspector, is required to ensure compliance with all of the appropriate standards (e.g. NEC, RCW 19.28 and appropriate WAC rules). The person purchasing the electrical permit will be responsible for the installation of all of the electrical equipment. Permit fees will be based upon the number of services, feeders, and circuits installed per WAC 296-46A-910. Local building authorities are responsible for ensuring compliance with other applicable building codes.

If closed construction methods are used, the structures must comply with all of the requirements of WAC 296-150F – Factory-built Housing and Commercial Structures, including plan review, factory inspections during construction, and proper insignia identification of the approved structures by L&I's Factory Assembled Structures program. Closed construction is when **any** structural element(s) or component(s) is not open for visual inspection. This includes, but is not limited to: electrical, plumbing, HVAC/R, studs, welds, insulation, vapor barriers and fastening devices.

● Fire Pump Installations

NEC Article 695 applies to fire pump installations that are legally **required** by a municipal, county, state, or federal fire protection authority. Such installations must be made using listed equipment in accordance with NEC 695-10. Booster pump/sprinkler systems that are installed voluntarily or installed in one and two family dwellings do not require the use of a listed fire pump or listed fire pump controller and Article 695 does not apply.

The requirements of NEC 430—MOTORS, MOTOR CIRCUITS AND CONTROLLERS relating to overcurrent and overload protection must be met in a “not legally required” voluntary booster pump/sprinkler system. Since fire pump controllers are investigated to ANSI/UL 218 and must allow conductors to carry the locked rotor current of the motor indefinitely, it is unlikely that compliance with NEC 430 can be obtained using listed fire pump controller equipment. Conventional motor control equipment is normally less expensive and more suitable for the intended use.

● Code Question of the Month

This month's Code Question: The cross-sectional area of the conductors permitted in a seal shall not exceed _____ percent of the cross-sectional area of rigid metal conduit, unless the seal is specifically listed for a higher percentage of conductor fill. A) 25, B) 50, C) 100, D) 125

Last month's Code Question: The height of a meter must be? A) 5-7 feet. B) 6 feet to the center of the meter. C) As required by the serving utility. D) Any of the above. **The answer is: C) As required by the serving utility. [WAC 296-46A-23001(3)]**